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ABSTRACT

This report discusses two possible approaches to maximize interest and aptitude in meeting the need for college instructors who are both scholars and teachers. Part I of the document concerns the extent to which existing graduate programs emphasize training for eventual college instruction. Part II addresses the possible development of doctoral level programs designed to emphasize classroom instruction rather than research in a given discipline. This portion of the report was prepared in particular response to a legislative resolution requesting such study. Based upon information presented in this report, the Council recommended (1) specific ways to expand and improve existent programs; (2) that no doctoral teaching program be initiated at this time; and (3) that the entire report be submitted to the legislature for information. Significant data are contained in tables and appendices. Part II has a seven page bibliography. (NF)

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APPROACHES TO PREPARING PROSPECTIVE COLLEGE TEACHERS

- I. Doctoral Programs with Emphasis Upon Preparing Graduate Students for College Teaching
- II. The Doctorate of Arts Degree

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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A Staff Report
Presented to
the Council

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PREFACE

The following report is addressed to two possible approaches to increasing interest and aptitude in college teaching: development of doctoral programs with particular stress placed upon the training and preparation of the graduate student to teach, and, on the other hand, the possible development of discrete doctoral-level programs designed to emphasize classroom instruction, rather than research in a given discipline.

The report is divided into two parts reflecting these two general approaches. Part I of the document concerns the extent to which existing graduate programs emphasize training for eventual college instruction. This material, prepared by Willard Spalding of the Council with the assistance of Michael Poggenburg, graduate assistant, makes use of several questionnaires sent to many university departments in California and nationally.

The discussion of the doctorate of arts degree (or more generally the doctorate with emphasis on teaching, however labeled) was prepared by Leslie Wilbur of the University of Southern California, School of Education making use of data developed by H. John Cashin of El Camino College. This portion of the report was prepared in particular response to legislative resolution requesting such study.

An ad hoc advisory committee gave counsel at several points in the investigations. Committee members included:

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PART I

DOCTORAL PROGRAMS WITH EMPHASIS UPON PREPARING GRADUATE STUDENTS FOR COLLEGE TEACHING

INTRODUCTION

The Coordinating Council for Higher Education requested its staff to report in respect to the feasibility and desirability of developing doctoral programs with emphasis upon preparation for college teaching. Council action was consistent with the following recommendation in A Master Plan for Higher Education in California:

Reorientation of present doctoral programs offered by California institutions be undertaken to insure that those receiving the degree and planning to enter college and university teaching possess the qualities not only of scholars, but of scholar-teachers. Because the University of California awarded 54.6 percent of the doctorates given by California institutions for the period 1952-53 - 1955-56, it has a particular responsibility for the implementing of this recommendation.

The report begins with a survey of the literature to ascertain what programs are reported as well as what arguments and opinions are offered in respect to such programs. A second portion of the report contains the results of a survey of selected colleges and universities, followed by a survey of California colleges and universities offering doctoral programs. The final section of the report presents findings, conclusions, and recommendations.

SECTION I - A Survey of the Literature in Respect to Preparing Students for College Teaching

Scholars who write about preparing students for college teaching unanimously claim that some preparation is desirable. However, there is some disagreement as to what preparation is most likely to be successful.

President John W. Atherton of Pitzer College, writing in Improving College Teaching¹, seeks three qualities in faculty fresh from doctoral programs, (1) mastery of subject-matter, (2) experience in teaching while a graduate student, (3) some knowledge of "the history and variety of American and European educational institutions, their aims and problems, their organization and structure, their rights, privileges, and obligations."² From his point of view, doctoral programs should contain these elements.

¹John W. Atherton, "Commentaries on Who Teaches the Teachers?" Improving College Teaching.

²Ibid., p. 91.

R. J. Henle, S.J., Vice President, Academic Administration, St. Louis University, believes that the basic pattern of the American Ph. D. "is educationally and philosophically sound and is the best terminal program yet devised by any educational system."¹ He goes on to argue against a false dichotomy between teaching and research, stating that both are necessary. He argues strongly for wide use of teaching assistants, with accompanying seminars in college teaching.

Dr. Jack B. Bresler, Assistant Provost of Tufts University, reports a study which examines the relationships between teaching effectiveness, publication, and the receipt of government support. He reports as follows, "A search of the literature showed that virtually all comments in the popular literature and most references in professional journals suggest that publication and receipt of support for research somehow detract from teaching performance in the classroom. The empirical data of the Tufts' study do not support these previous conclusions. The students rated as their best instructors and those faculty members who had published articles and who had received or were receiving government support for research."² Thus, the research elements in a Ph. D. program can be viewed as contributing to teaching competence.

Ann M. Heiss³ reports a study of Berkeley doctoral students' appraisal of their academic programs. She analyses over 2,300 questionnaires and 100 interviews of doctoral students from 56 graduate departments. Among her other recommendations is the following, "Graduate departments should assume some responsibility for developing the teaching ability of their students who plan to become college instructors. To this end, paid internships should be established to draw the recipient into the full intellectual activity of the department more effectively than do teaching assistantships."

Frank Koen⁴, finding that 90% of new Ph. D.'s joining college faculties received their degrees from about 50 universities. A survey of the three or four most active training programs in these institutions revealed that "The great majority of programs . . . are geared principally toward the financial support of graduate students and the department's instructional needs, rather than to the preparation of college teachers. When viewed in the light of the first criterion, practically all programs are successful, in that teaching assistantship stipends are effectively used to attract promising young scholars to the campus

¹R. J. Henle, "The Soundness of the American Ph. D. Program," in Lee, op. cit., p. 72.

²Jack B. Bresler, "Teaching Effectiveness and Government Awards," Science, 160 (April 12, 1968), pp. 164-167.

³Ann M. Heiss, "Berkeley Doctoral Students Appraise Their Academic Programs," The Educational Record (Winter 1967), pp. 30-44.

⁴Frank Koen, "The Training of Graduate Student Teaching Assistants," The Educational Record (Winter 1968), pp. 92-102.

. . . I had the impression, however, that an increasing number of universities and their constituent departments are preparing to undertake constructive action aimed at better training of teaching assistants for their important roles."¹

The above impression is correct; a survey of the literature describes a number of promising programs designed to prepare graduate students for college teaching. A few selected programs are described below.

The History Department of Washington University has developed a four-year Ph.D. program which includes (1) observation of senior faculty, followed by discussions of teaching problems, (2) a summer of intensive reading in preparation for courses to be taught during the second year, (3) teaching two courses under supervision for two years, with occasional lectures, including supervision of honors theses and helping prepare examinations.²

At Yale University teaching interns are used in several departments. Interns receive limited supervised teaching experience under selected faculty.³

At Antioch College, a small number of interns who have completed all or most of the Ph.D. program, serve one year appointments and then take positions in other colleges. Senior faculty members supervise their teaching and discuss problems with them.⁴

The German Department at Indiana University operates a program for teaching assistants with the following major elements:

1. Training of new TA's in pre-teaching sessions conducted by the director 1st and 2nd year work, the TA advisory, and the chairman of the respective courses.
2. All TA's and candidates for the master's and doctoral degree are required to enroll in a 3 credit hour graduate course entitled "Problems and Methods of College German Teaching."
3. Carefully regulated and supervised teaching of 1st and 2nd year courses.
4. Observation of senior faculty as they teach.⁵

The Center for Research on Learning and Teaching of the University of Michigan completed and published in January 1967 a report entitled,

¹Ibid., p. 102

²M. Max Wise, "Who Teaches the Teachers?" in Lee, op. cit., p. 84.

³Ibid., pp. 84-85.

⁴Ibid., pp. 86-87.

⁵Henry H. H. Remark, "The Training and Supervision of Teaching Assistants in German," MLJ, XXXI (1957), pp. 212-214.

"An Analysis of the Specific Features Which Characterize the More Successful Programs for the Recruitment and Training of College Teachers."¹ Their findings in respect to training programs are summarized below:

Nearly all programs in the 42 institutions contacted are department-focused and virtually all training activity is controlled by, and confined to, department personnel. Two administrative factors appear to be crucial to the establishment and continuance of training programs: (a) the participation by senior members of the faculty who command the professional respect of their colleagues, and who stand in positions of influence; (b) the presence of individual faculty members who have the interest and capacity to serve as effective administrators of the program.

Typically, teaching assistants begin their instructional duties in the first graduate year with very little formal consideration of their teaching potential or competence.

As might be expected, the skills and knowledge upon which attention is customarily focused in training programs are those seen as most directly relevant to the teaching assistant's day-to-day duties. These most commonly include information on specific teaching strategies which appear well adapted to certain topics, drawing up course outlines, syllabi and reading lists, and at least an occasional brush with the problems of evaluating student achievement. "Methods" courses per se appear to be a universal anathema.

Lastly, there is little systematic activity to report regarding the evaluation of either the performance of teaching assistants or the success of the program. In both cases, global opinions of the faculty are the most common basis for judgment. There appear to be few attempts to state with any clarity what the goals of the training program are, or what "competence as a teacher" means with regard to a teaching assistant. There are some exceptions, but they constitute a small minority.

It is significant, then, that is less than one-third of the observed programs is faculty time expressly set aside for such functions. In the remainder, these duties have simply been superimposed on other administrative tasks and teaching and scholarly activities.

¹ Center for Research on Learning and Teaching, An Analysis of the Specific Features Which Characterize the More Successful Programs for the Recruitment and Training of College Teachers (The University of Michigan: Ann Arbor, Michigan), Project No. S-432, Contract No. OE-6-10-227, January 1967.

In other words, the striking growth in the magnitude of the problem of training and guiding teaching assistants has occurred without a corresponding change in the methods of coping with these enlarged demands.

Two factors were seen as fairly often inhibiting the development of programs. The first, and most often mentioned (43% of the cases), was the lack of faculty interest in the training-supervision role. The other inhibitory factor--and one which is not entirely separate from the first--is the shortage of staff for carrying out training functions.

Formal Characteristics of Programs

Considerable variations were noted in the scope of the activities associated with a given program--ranging from a brief orientation meeting and a few brown-bag discussions to formal course offerings, regular individual meetings between teaching assistant and supervisor, and several class visits by the supervisor. Variations also exist in the degree of formal structure which obtains: some programs operate on the basis of occasional informal discussions between teaching assistant and supervisor; others boast a clearly defined three-level hierarchy with a faculty supervisor, a cadre of experienced teaching assistants who serve as group leaders, and relatively large numbers of comparatively inexperienced "apprentices." As might be expected, the more formal features are usually associated with the larger departments.

A new development in 16 of the larger departments is the regular use of experienced teaching assistants in administrative, training, and supervisory roles within the program.

Mechanisms of Training and Guidance

1. "Individual supervisor"

The approach most often followed is that of "individual supervision" reported by 84% of the respondents). By this is meant that all or most of the guidance and help which is provided the teaching assistant is offered on an individual basis; organized or group presentations and discussions are minimal. "Individual supervision" most often takes one or more of three forms. The most frequent one reported stresses the "availability" of the supervisor for consultation, informal discussion between supervisor and teaching assistant, and occasional contact with very little structure. This format, probably an extension of the pattern familiar in some departments in the past, leaves

the initiative in the hands of the teaching assistant and enjoins a fairly passive role for the supervisor. The second most popular form of individual supervision takes the form of one or more class visits by the faculty person to observe the in-class teaching skills of the teaching assistant, often followed by brief conferences.

2. "Brown-bag seminars"

The second most frequently used device in training programs are the informal meetings ("brown-bag seminars") of all teaching assistants, or all assistants teaching in a given course.

The popularity of pre-service orientations of teaching assistants seems to be increasing. About 40% of the programs now conduct meetings before the beginning of fall semester classes at which various administrative matters are clarified, such as departmental and college rules, the assignment of sections, forms, and texts, and the distribution of syllabi.

Only 24% of the departments and schools offer formal courses or seminars in college teaching.

Sequential Experiences in Training

Approximately one-third of the training programs regularly attempt to match the teaching assistant's increasing competence with roles and tasks calling for increased responsibility and freedom to make decisions of his own.

So far, three general patterns have emerged. In the most common one, the beginner first assists and observes in the course he will later teach. After one semester in this role, he teaches one or two sections of the same course. A second procedure is to mix the observation and teaching roles in the same semester. The third pattern calls for the teaching assistant to first teach a section in the introductory course of his discipline, and, with increasing subject-matter and teaching competence, to advance to honors sections or to discussion sections of intermediate-level courses.

Systematic attempts to evaluate the performance of teaching assistants--and improvements in that performance--are fairly unusual. Such attempts are almost non-existent in the case of evaluations of the programs themselves.

FINDINGS

1. Mastery of subject matter is seen as at least equal in importance to mastery of teaching skills.
2. Research activities can lead to effective teaching.
3. Experience as a teaching assistant is an essential element in preparing college teachers.
4. Supervision of teaching assistants is an element in a significant number of programs which prepare college teachers.
Some programs include pre-service preparation of teaching assistants.
6. Most programs provide pay, tuition waivers, or other financial rewards to teaching assistants.
7. Observation of senior faculty by teaching assistants is an element in some programs.
8. Evaluation of teaching assistants is largely informal.
9. Faculty time is allocated too rarely to programs preparing graduate students to teach.
10. Seminars, discussion groups or formal courses deal with the problems confronted by graduate students as they teach.
11. Academic departments are responsible for nearly all programs.
12. Few programs have been designed to achieve specifically stated ends.
13. Some programs provide opportunities for experienced teaching assistants to perform administrative, training, and supervisory functions.
14. Some programs provide increasingly sophisticated assignments to teaching assistants progressing successfully.
15. Few programs have been evaluated.

CONCLUSIONS

The above findings lead to the following general guidelines for programs designed to prepare graduate students to teach in higher education:

1. Opportunities to teach are essential, effective elements in programs to prepare graduate students to teach.
2. Graduate students are likely to begin their teaching effectively if they have prior preparation for their teaching assignments.
3. Graduate students are likely to profit from assistance and advice provided in connection with problems arising as they perform their teaching assignments.
4. Graduate students are likely to improve in their preparation for and their performance of their teaching assignments if they are informed periodically about how well they are doing.

While the literature contains many references supporting thorough knowledge of content, an essential element in teaching, no guideline in respect to it is included here. Rather it is assumed that mastery of subject matter will continue to be an important aspect of all doctoral programs.

SECTION II - Practices in Programs Preparing Doctoral Candidates to Teach

A survey by Council staff of institutions offering programs leading to a doctoral degree included three different questionnaires. The first sought basic information both about programs designed to prepare doctoral candidates to teach and about departments offering these programs. The second questionnaire sought more detailed information from departments offering programs. When a reply from a department indicated that an unusual program was in operation, a third questionnaire sought information about it.

Replies from all California institutions and from the University of California were analyzed separately so that practices here could be compared with practices elsewhere. From this comparison, it is possible to determine the extent to which doctoral programs have been reoriented to meet a recommendation of the Master Plan.¹

Out of 61 institutions outside of California receiving the first questionnaire, a total of 27 or 44% replied (see Appendix A). The replies are tabulated in Table I. With very few exceptions, programs preparing doctoral candidates to teach are offered by departments. In every responding institution, graduate students are employed to perform part of the instructional function. Formal procedures are used in about 40% of the institutions to prepare graduate students for this work, in 51% of them to evaluate the graduate students' participation in this preparation, in 80% to help them after they have begun work, and in 52% to evaluate graduate students' performance of their work. Informal procedures supplement these in most institutions, and in some are the only ones used. Here the results seem to indicate somewhat more formal procedures than were found by the Michigan study reported in Part I.²

The 146 departments responding to the second questionnaire were grouped into four major categories: Humanities, Professional, Science, Social Science (See Appendix C). Many departments provided as many as five responses to a single query, indicating a variety of practices in programs to prepare graduate students to teach. The total number of replies indicating that a specific practice was included in a program were then distributed by percentages in each of the four categories of subject matter (See Appendix B). The results are found in Table II. Comparisons with California follow-- Tables III and IV.

¹A Master Plan for Higher Education in California, 1960-75, p. 2., see also page 1 of this report.

²op. cit.

Table I
THE PERCENT OF RESPONDING INSTITUTIONS REPORTING PRACTICES
FOUND IN PROGRAMS PREPARING ADVANCED GRADUATE STUDENTS TO PERFORM
THE INSTRUCTIONAL FUNCTION

1. Do you include preparation for teaching in programs leading to the doctorate?

Yes - 80%
No - 20%

Organizational level:

Academic Department - 80.00%
Elsewhere - 3.33%
Both - 16.67%

2. Does your institution employ graduate students to perform part of the instructional function?

Yes - 100%
No - 0%

Capacity for which the student is employed:

Quiz	-	<u>23.36%</u>	Teach	-	<u>20.56%</u>
Lab	-	<u>29.91%</u>	Other	-	<u>.93%</u>
Read	-	<u>25.23%</u>			

3. How are graduate students prepared?

a. Formally:

b. Informally:

Yes - 39.02%
No - 60.98%

Yes - 85%
No - 15%

4. How are graduate students' participation evaluated?

a. Formally:

b. Informally:

Yes - 51.28%
No - 48.72%

Yes - 85.71%
No - 14.29%

5. How are graduate students assisted, advised, or supervised after they have begun such work?

a. Formally:

b. Informally:

Yes - 80.49%
No - 19.51%

Yes - 100%
No - 0%

6. How are graduate students' performance evaluated?

a. Formally:

b. Informally:

Yes - 52.63%
No - 47.37%

Yes - 100%
No - 0%

In reading these comparisons, one should keep in mind the fact that many departments include many procedures included in a single category.

First, in respect to opportunities for graduate students to teach students in classes (quiz sections, discussion groups, courses), a smaller proportion of California departments provide them than the proportion providing these opportunities elsewhere in all broad academic areas except science, where the percentage in California is about the same (33% vs 32%). The proportion of departments in the University providing this experience is (1) greater than the proportion in California as a whole, (2) smaller than the proportion elsewhere and in the state as a whole in the professional and social science areas, and (3) below the state as a whole, but equal to the proportion elsewhere in the area of science.

Second, in respect to preparing graduate students for their instructional assignments, meetings with the responsible professor are used by the largest proportion of departments in all broad academic areas in the University, in California as a whole, and elsewhere. The use of department meetings for this purpose is reported by a larger proportion of University departments in humanities (23%) and social science (23%) than in the state as a whole (14%, 7%) or elsewhere (9%, 9%).

The use of department meetings to prepare graduate students for their instructional assignments is reported by a larger proportion of University of California departments in the humanities (23%), science (33%) and social science (23%) than in the state as a whole (14%, 21%, 7%) or elsewhere (9%, 15%, 9%). In the professional area, the proportion of University departments reporting this practice is (10%), about the same proportion as in the state as a whole (11%) and below the proportion elsewhere (15%).

The use of pre-school workshops for this purpose is reported by fewer than 15% of all departments. It is reported by a smaller proportion of University departments than of departments in California as a whole or elsewhere except in the professional area where use in the University and the state as a whole is reported by a larger proportion of departments than elsewhere.

Formal courses including undergraduates are reported as used for this purpose by 27% of humanities' departments in the University, 32% of these departments in the state as a whole and 35% elsewhere. In the professional area, the respective figures are University 30%, California as a whole 11%, elsewhere 37%; for the science area: University 15%, California 10%, elsewhere 22%; for the social science area: University 19%, California 21%, elsewhere 22%.

Table II

THE ROUNDED PERCENT OF RESPONDING DEPARTMENTS, GROUPED BY
CATEGORIES OF SUBJECT MATTER, REPORTING PRACTICES FOUND
IN PROGRAMS FOR THE PREPARATION OF ADVANCED GRADUATE STUDENTS
TO PERFORM THE INSTRUCTIONAL FUNCTION

1. To what parts of the teaching function (teaching quiz sections, reading papers, assisting in laboratories, etc.) are graduate students usually assigned?

	<u>Humanities</u>	<u>Professional</u>	<u>Science</u>	<u>Social Science</u>
Quiz Sections	16	15	25	23
Reading	17	18	29	25
Labs.	15	16	39	15
Discussion	1	10	5	12
Frosh Courses	42	28	1	22
Soph. Courses	9	11	--	2

2. How are they prepared to perform the above assignments?

	<u>Humanities</u>	<u>Professional</u>	<u>Science</u>	<u>Social Science</u>
Under-Grad Class	6	27	16	12
Instruction Manuals (Syllabi)	10	5	6	6
Dept. Meetings	9	15	15	9
Formal Course	29	10	6	10
Pre-School Workshop	11	7	13	12
Meetings with Prof.	35	37	44	51

3. How is a student's participation in such preparation evaluated?

	<u>Humanities</u>	<u>Professional</u>	<u>Science</u>	<u>Social Science</u>
Student Feedback	6	3	12	11
Subjectively by Prof.	44	48	42	40
Visitations by Prof.	22	14	28	11
Dept. Faculty	18	7	5	11
Letter Grade	2	10	--	5
Not Formally Evaluated	8	17	14	22

4. How are students assisted, advised, or supervised after they have begun their assigned work in part of the instructional function?

	<u>Humanities</u>	<u>Professional</u>	<u>Science</u>	<u>Social Science</u>
Meetings With Prof.	57	67	70	68
Visitation by Prof.	23	12	13	10
Dept. Faculty	7	12	3	9
Master Copy	2	6	10	3
Group T.A. Meetings	7	--	3	6
Formal Course	5	3	3	4

5. How is a student's performance of his assigned work evaluated?

	<u>Humanities</u>	<u>Professional</u>	<u>Science</u>	<u>Social Science</u>
Subjectively by Prof.	57	43	59	55
Student Evaluation	10	20	17	27
Observation of Faculty	8	13	11	8
Visitation by Prof.	23	23	13	8

N = 151 Departments

Table III

-12-

**THE ROUNDED PERCENT OF RESPONDING DEPARTMENTS IN CALIFORNIA
INSTITUTIONS OFFERING DOCTORAL PROGRAMS, GROUPED BY CATEGORIES
OF SUBJECT MATTER, REPORTING PRACTICES FOUND IN PROGRAMS FOR THE
PREPARATION OF ADVANCED GRADUATE STUDENTS TO
PERFORM THE INSTRUCTIONAL FUNCTION**

1. To what parts of the teaching function (teaching quiz sections, reading papers, assisting in laboratories, etc.) are graduate students usually assigned?

	<u>Humanities</u>	<u>Professional</u>	<u>Science</u>	<u>Social Science</u>
Quiz Sections	20	28	25	29
Reading	30	28	29	33
Labs.	12	16	37	12
Discussion	6	12	8	14
Frosh Courses	30	12	--	11
Soph. Courses	2	4	--	2

2. How are they prepared to perform the above assignments?

	<u>Humanities</u>	<u>Professional</u>	<u>Science</u>	<u>Social Science</u>
Under-Grad Class	7	11	7	14
Instruction Manuals (Syllabi)	7	--	3	7
Dept. Meetings	14	11	21	7
Formal Course	25	--	3	7
Pre-School Workshop	11	11	14	7
Meetings With Prof.	36	67	52	57

3. How is a student's participation in such preparation evaluated?

	<u>Humanities</u>	<u>Professional</u>	<u>Science</u>	<u>Social Science</u>
Student Feedback	4	20	16	18
Subjectively By Prof.	63	53	41	30
Visitations By Prof.	8	13	3	15
Dept. Faculty	17	7	19	21
Letter Grade	4	--	--	12
Not Formally Evaluated	4	7	22	6

4. How are students assisted, advised, or supervised after they have begun their assigned work in part of the instructional function?

	<u>Humanities</u>	<u>Professional</u>	<u>Science</u>	<u>Social Science</u>
Meetings With Prof.	62	73	58	55
Visitation By Prof.	15	9	18	17
Dept. Faculty	--	9	6	11
Master Copy	4	--	3	--
Group T.A. Meetings	12	9	15	11
Formal Course	8	--	--	5

5. How is a student's performance of his assigned work evaluated?

	<u>Humanities</u>	<u>Professional</u>	<u>Science</u>	<u>Social Science</u>
Subjectively By Prof.	52	63	51	58
Student Evaluation	9	13	11	23
Observation Of Faculty	18	11	23	3
Visitation By Prof.	21	13	14	16

N = 87

THE ROUNDED PERCENT OF RESPONDING DEPARTMENTS IN THE UNIVERSITY
OF CALIFORNIA OFFERING DOCTORAL PROGRAMS, GROUPED BY CATEGORIES
OF SUBJECT MATTER, REPORTING PRACTICES FOUND IN PROGRAMS FOR THE
PREPARATION OF ADVANCED GRADUATE STUDENTS TO
PERFORM THE INSTRUCTIONAL FUNCTION

1. To what parts of the teaching function (teaching quiz sections, reading papers, assisting in laboratories, etc.) are graduate students usually assigned?

	<u>Humanities</u>	<u>Professional</u>	<u>Science</u>	<u>Social Science</u>
Quiz Sections	19	28	23	30
Reading	28	39	32	39
Labs	9	17	36	9
Discussion	3	6	8	16
Frosh Courses	34	11	--	7
Soph. Courses	6	--	--	--

2. How are they prepared to perform the above assignments?

	<u>Humanities</u>	<u>Professional</u>	<u>Science</u>	<u>Social Science</u>
Under-Grad Class	9	30	10	19
Instruction Manuals (Syllabi)	18	--	--	--
Dept. Meetings	23	10	33	23
Formal Course	18	--	5	--
Pre-School Workshop	5	10	10	8
Meetings With Prof.	27	50	43	50

3. How is a student's participation in such preparation evaluated?

	<u>Humanities</u>	<u>Professional</u>	<u>Science</u>	<u>Social Science</u>
Student Feedback	--	10	8	19
Subjectively By Prof.	48	60	37	37
Visitations by Prof.	14	10	17	7
Dept. Faculty	33	20	21	22
Letter Grade	--	--	--	15
Not Formally Evaluated	5	--	17	--

4. How are students assisted, advised, or supervised after they have begun their assigned work in part of the instructional function?

	<u>Humanities</u>	<u>Professional</u>	<u>Science</u>	<u>Social Science</u>
Meetings With Prof.	36	75	46	60
Visitation By Prof.	16	--	17	12
Dept. Faculty	16	13	17	16
Master Copy	4	--	--	--
Group T.A. Meetings	20	13	21	8
Formal Course	8	--	--	4

5. How is a student's performance of his assigned work evaluated?

	<u>Humanities</u>	<u>Professional</u>	<u>Science</u>	<u>Social Science</u>
Subjectively by Prof.	36	60	46	64
Student Evaluation	9	10	8	9
Observation Of Faculty	32	10	21	14
Visitation By Prof.	23	20	25	14

N = 63

Third, in respect to evaluation of a graduate student's participation in programs preparing them for their instructional assignments, subjective appraisal by the responsible faculty member is reported by the largest proportion of departments in all academic areas in the University, California as a whole, and elsewhere. All departments of the University in the professional and social science areas report some type of evaluation of students' participation in programs preparing them for their teaching assignments. In contrast, no evaluation is reported, by 7% of professional departments in the state as a whole, by 17% elsewhere. For social science departments, the proportion reporting no evaluation is 6% in the state as a whole, and 22% elsewhere. The absence of evaluation is reported by a higher proportion of science departments in the state as a whole (22%) than at the University (17%) and elsewhere (14%). The proportion of humanities departments reporting no evaluation is 4% in the state as a whole, 5% in the University, and 8% elsewhere.

Fourth, in respect to assisting, advising, or supervising graduate students after they have begun their instructional assignments, the largest proportion of departments in all academic areas in the University, the state as a whole, and elsewhere report meetings with the responsible professor as the most common means of providing help. However, fewer than one-fourth of the reporting departments, taken as a whole, report that responsible faculty members observe students at work; when observation by other members of the faculty is added, fewer than one-third report any observation of students at work. No professional departments at the University of California report observation by the responsible faculty member, the only significant difference in the proportion of departments reporting this practice. The use of group meetings of teaching assistants is reported by the largest proportion of departments in all academic areas of the University of California (from 8 - 21%); next the state as a whole (9 - 15%), followed by departments elsewhere from 0 - 7%.

Fifth, evaluation of a student's performance of his instructional assignment is reported by every department. In every instance, subjective evaluation by the responsible professor is reported by the largest proportion of departments. Student evaluation is reported from a larger proportion of departments in the professional, science, and social science areas elsewhere (17 - 27%) than of similar departments in the state, as a whole (11 - 23%) or in the University (8 - 10%). Student evaluation is reported by about the same proportion of all departments in the humanities. Observation of the student by faculty is reported by a larger proportion of professional departments elsewhere (13%) than at the University (10%) or in California as a whole (11%). This practice is reported by a larger percentage of University departments in humanities (32%) than in the state as a whole (18%) and elsewhere (8%). Relative proportions of science departments reporting this practice are California as a whole (23%), the University of California (21%) and elsewhere (11%). For social science departments, the proportions are: University (14%), elsewhere (8%), and California as a whole (3%). Visitation by the responsible faculty member as a basis for judgment is reported by about the same proportion of humanities departments in the University (23%) as in the state as a whole

(21%) and elsewhere (23%). Of professional departments, the proportion reporting is University (20%), California as a whole (13%), and elsewhere (23%). The variation among the proportion of science departments reporting this practice varies more sharply: the University (25%), the state as a whole (14%), and elsewhere (13%). Variation is also found in the social science area: the University (14%), California as a whole (16%), elsewhere (8%).

Returns from the third questionnaire, directed toward securing more information about innovative procedures yielded little that was new. However, four practices warrant some attention.

The Department of Mathematics at Indiana University conducts a summer training program for 20 new teaching assistants. The other teaching Assistants receive a week of orientation in the fall before classes begin. The program ran from June 20 to August 10 and was budgeted at \$16,000. Each student received \$600 as a fellowship during the summer and \$4,000 was used to pay the faculty members conducting the program. This program consisted of a daily seminar in which the mathematics' professors discussed teaching problems and techniques and in which several visitors were brought in from the School of Education to also lecture. Each student prepared lectures which he delivered and for which he received criticism. Both the faculty members who conducted the program and several of the students commented that they felt it was a very successful venture.

Departments at the University of Illinois and at Texas Christian University use video tapes of teaching as bases for discussions of problems and techniques of teaching. Tapes of experienced faculty are used as examples, at other times the graduate student may observe a taped record of his own teaching. In nearly every instance, a regular faculty member is present to comment upon the recorded activities.

The Regents of the University of the State of New York offer \$2,500 fellowships which are available for each of two years to graduate students enrolled in special and approved doctoral programs leading to teaching at the college level. Holders of Regents' college teaching fellowships may attend colleges or universities anywhere in the United States. However, each recipient of a fellowship signs a declaration of intent to teach in a college or university in the State of New York immediately subsequent to his completion of his doctoral program. The statement is a moral obligation, many fellowship holders for good reasons take their first job out-of-state, but they are not lost to the profession and may eventually return to New York. Teaching and research assistantships may be considered part of a full-time load when they (1) contribute to normal progress, (2) are appropriate to the student's degree program, and (3) are under faculty supervision.

On April 1, 1964, the most recent date for which such information is available, 350 awards were announced, making a total of nearly 2,000 Regents' teaching fellows enrolled in programs preparing them for college teaching.

Data for California institutions of higher education are presented in two ways: (1) for the state as a whole, including the University of California, and (2) for the University of California (see Tables III and IV). Comparisons of data in these tables with data from institutions elsewhere (see Table II) yield the results described below.

FINDINGS

1. All California institutions of higher education offering doctoral programs include preparation of graduate students for the instructional function as an element of some departmental doctoral programs.
2. Employment of graduate students to teach classes (quiz sections, discussion groups, courses) is reported by a smaller proportion of departments in the University of California and the state as a whole than elsewhere in all areas except science where the proportion reporting is about equal. The proportion of departments in the humanities, professional, and social science areas in the University of California reporting this practice is somewhat higher than those in the state as a whole, but less than the proportion elsewhere. In science, the proportion reporting the practice in the University is about the same as elsewhere.
3. While meetings with the responsible professor is reported by the largest number of departments in all areas as a means of preparing graduate students for their instructional assignments, there are significant differences among the proportion of departments reporting other specific practices. More formal procedures (department meetings, formal courses, and pre-school workshops) are reported by a smaller proportion of University departments than of departments in the state as a whole or of those elsewhere.
4. Evaluation of graduate students' participation in programs preparing them for their instructional assignments is reported by a larger proportion of University departments than the proportion reporting from the state as a whole or elsewhere.
5. Meetings with the responsible faculty members are the most frequently reported means of helping students improve their performance of assigned instructional tasks. However, observation of students at work is reported by fewer than one-third of the departments. The only significant differences are found in professional departments of the University, where such observation by the responsible faculty member is not reported.
6. Evaluation of student performance of his instructional tasks is reported by all departments, with subjective appraisal by the responsible faculty member most commonly reported. The use of student evaluation is reported by a smaller proportion of departments of the University of California and of California as a whole than elsewhere. Visitation by responsible faculty is reported more widely in the University and the state as a whole than elsewhere.

7. Teaching fellowships in New York state attract graduate students into doctoral programs preparing them for college teaching.

CONCLUSIONS

1. Opportunities to teach, reported less frequently by the University and by the state as a whole than reported elsewhere, should be examined in order to ascertain the number needed to provide for all graduate students desiring to become college teachers.
2. More structure seems needed in programs designed to prepare students for their instructional assignments.
3. Evaluation of students' participation in preparation for instructional assignments and in performance of these assignments includes too little use of visitation by faculty, of observation of graduate students at work, and of student feedback.
4. Assisting, advising, and supervising graduate students as they perform their instructional assignments, reported generally as informal, does not include enough use of such means as visitations, observations, and group meetings of teaching assistants.
5. Teaching fellowships are a useable means of attracting graduate students into doctoral programs preparing them for college teaching.

SECTION III - General Discussion and Recommendations

Four basic guidelines in respect to essential elements in a program preparing graduate students to teach (see Section I) are restated here.

1. Opportunities to teach are essential, effective elements in programs to prepare graduate students to teach.
2. Graduate students are likely to begin their teaching effectively if they have prior preparation for their teaching assignments.
3. Graduate students are likely to profit from assistance and advice provided in connection with problems arising as they perform their teaching assignments.
4. Graduate students are likely to improve in their preparation for and performance of their teaching assignments if they are informed periodically about how well they are doing.

These four guidelines yield the following elements of a possible program structure.

1. Planned specific teaching assignments for all graduate students who desire them.
2. Preparation of graduate students for their specific teaching assignments.
3. Feedback to students of periodic evaluation of their participation in such preparation.
4. Planned supervision of students' performance of their teaching assignments.
5. Planned concomitant seminars, conferences, meetings, or other activities in which students and senior faculty can discuss problems arising in students' performance of their teaching assignments.
6. Feedback to students of periodic evaluation of their performance of their specific teaching assignments.

The problem of developing viable programs to prepare graduate students for college teaching is complicated by a number of problems described below.

First, graduate students usually have plans about future employment, once they receive doctor's degrees. In some disciplines, opportunities for gainful work in business, industry, or government may seem so attractive to many students that too few will desire to prepare for college teaching, even though many of those entering business or industry may eventually teach.

Second, doctoral programs, taken as a whole, are designed to produce scholars, persons who will devote a lifetime to the quest for more knowledge about some aspect of man or his environment. The geometric rate of increase in knowledge is a measure of the success of these programs. And the need for additional knowledge increases as rapidly as does knowledge itself, for each new understanding enables knowledgeable scholars to ask new questions. Provisions for preparing graduate students to teach must be in addition to present doctoral programs rather than replacements for part of them. However, teaching at its best level develops students who will avidly seek to learn more. Thus graduate students' experiences in learning to become scholars can become substantial resources for their teaching.

Third, information is not available as to the number of teaching assistantships needed at the University of California in order to provide teaching assignments for all graduate students preparing to enter college teaching. While the ratio of teaching assistantships to graduate enrollment has been dropping (see Table V below) the proportion of graduate students who are doctoral candidates has been rising. However, no judgment can be made in respect to the question of whether or not enough teaching assistantships are available.

Table V

A COMPARISON OF GRADUATE ENROLLMENT AT THE UNIVERSITY
OF CALIFORNIA WITH THE NUMBER OF TEACHING ASSISTANTSHIPS
BUDGETED, IN SELECTED YEARS

	<u>1950-51</u>	<u>1955-56</u>	<u>1960-61</u>	<u>1965-66</u>	<u>1968-69</u>
Graduate Enrollment	9,193	9,385	14,694	25,426	34,064
Teaching Assistantships (FTE)	490	495	693	1,080	1,444
	(# empl.)	(# empl.)	(budget)	(budget)	(budget)
Ratio	5.4%	5.3%	4.7%	4.3%	4.4%

Fourth, the use of graduate students to teach lower division courses is often criticised as a practice which deprives undergraduate students of opportunities to receive instruction from senior members of the faculty. This criticism seems to be based upon the following assumptions: (1) that, if the use of teaching assistants were eliminated, funds would be made available to add the necessary number of senior faculty, (2) that teaching assistants do not teach effectively, and (3) that senior faculty do not participate in improving the effectiveness of teaching assistants.

The validity of these assumptions is open to question. In respect to the first, with all of the demands upon state resources or upon resources of private universities a substantial increase in funds for additional senior faculty is unlikely. In respect to the second, since nearly all teaching assistants are at least as well prepared as are beginning faculty in Junior Colleges, there seems to be little reason to question that their teaching would be generally comparable to that of their peers in Junior Colleges where the bulk of lower division instruction occurs. In respect to the third, many senior faculty members participate in improving the effectiveness of teaching assistants, although more opportunities for planned participation are needed.

Fifth, the reward systems used in higher education do not always provide adequate incentives for senior faculty members to devote a significant proportion of their time to service in programs preparing graduate students to teach. In fact, most reward systems give prime weight to scholarly work. Under these systems, a senior faculty member may believe that time spent in such programs reduces his opportunity for scholarly work and jeopardizes possible increases in pay or promotion in rank.

Sixth, time required for planning, managing and participating in programs preparing graduate students to teach is not always included in determinations of workloads of senior faculty. Participation can become an overload which may not only burden interested members of the faculty, but may also discourage others who might become interested.

Seventh, and finally, some senior faculty, recalling their own success as teachers, with no preparation for teaching, believe that such preparation is unnecessary. They are joined in point of view by others who believe that mastery of subject matter is either the sole prerequisite for effective teaching or is of such prime importance that other preparation has little value. Thus there may be some resistance establishing doctoral programs to prepare graduate students for college teaching.

RECOMMENDATIONS

1. That the Council advise the University of California to explore ways to provide specific teaching assignments for all graduate students planning to become college teachers. This exploration should include at least the following areas:
 - a. Determining the minimum number of teaching assistantships necessary to provide teaching experience for all graduate students planning to become college teachers.
 - b. Determining the feasibility of developing through cooperative relations with other segments of higher education opportunities for specific teaching assignments for university graduate students.

2. That the Council advise the University to continue to expand and improve its programs designed to prepare graduate students for college teaching with particular attention to at least the following elements in each program.
 - a. Planned specific teaching assignments for all graduate students who desire them.
 - b. Preparation of graduate students for their specific teaching assignments.
 - c. Feedback to students of evaluation of their participation in such preparation.
 - d. Planned supervision of students' performance of their teaching assignments.
 - e. Planned concomitant seminars, conferences, or other activities in which students and senior faculty can discuss problems arising in students' performance of their teaching assignments.
 - f. Feedback to graduate students of periodic evaluation of their performance of their teaching assignments.
3. That the Council advise the University to encourage departments offering programs preparing graduates for college teaching to take cognizance of senior faculty's responsibility for developing and operating programs preparing graduate students for college teaching by
 - a. Considering these responsibilities as elements in faculty workload, and by
 - b. Considering these responsibilities when making decisions about promotions in rank and in pay.
4. That the Council advise the Scholarship and Loan Commission to develop a program of teaching fellowships for graduate students preparing to enter college teaching and to present it to the Legislature at its 1970 general session.
5. That the Council transmit this report to the Legislature for its information.

APPENDIX A

INSTITUTIONS RECEIVING AND THOSE RESPONDING TO QUESTIONNAIRES

California

X	Stanford	X	U.C. = Los Angeles
X	U.C. = Santa Barbara	X	University of Southern California
X	U.C. = Berkeley	X	Claremont University
X	U.C. = Irvine	X	University of the Pacific
X	U.C. = Santa Cruz	X	U.C. = Davis
X	U.C. = Riverside	X	U.C. = San Diego

Elsewhere

X	Boston University		Northwestern University
	Michigan State		University of Connecticut
	Rutgers University		University of Colorado
X	Cornell University		University of Arizona
	North Texas State	X	Arizona State University
X	Texas Tech. College	X	Villanova University
	Texas A & M University		University of Pennsylvania
	Southwestern Medical School	X	Temple University
X	University of Texas Med.	X	Pennsylvania State University
	University of Texas	X	Duquesne University
X	Rice University		University of Oregon
X	Texas Christian	X	Oregon State University
	Southern Methodist		Syracuse University
X	East Texas State		New York University
X	University of Houston	X	Fordham University
	Texas Women's University	X	Columbia University
X	Baylor University		Rutgers State University
X	Wayne State University	X	Princeton University
	State University of New York	X	Massachusetts Institute of Technology
	Michigan Tech. University	X	Harvard
	Drexel		University of Maryland
	Carnegie Institute of Tech.	X	Purdue
	Bryn Mawr	X	Indiana University
X	University of Detroit	X	Ohio State University
X	Western Michigan University		Michigan State University
X	Southern Illinois University	X	University of Michigan
X	University of Illinois		

X = Responding institution

APPENDIX B

CLASSIFICATION OF DEPARTMENTS NATIONALLY
BY BROAD ACADEMIC AREAS

Humanities

3 Classics
16 English
4 French
4 German
2 Fine Arts
1 Journalism
7 Philosophy
2 Spanish
3 Speech

Sciences

4 Biology
3 Botany
15 Chemistry
2 Geology
3 Physics
5 Zoology

Social Science

3 Anthropology
12 History
10 Political Science
11 Psychology
8 Sociology
1 Geography
5 Economics

Professional

3 Business Administration
2 Engineering
6 Education
2 Home Economics
1 Management
1 Marketing
11 Math
1 Accounting

36 Not Classified Above

PART II

THE DOCTORATE OF ARTS DEGREE¹

INTRODUCTION

Senate Resolution 210 adopted in May 1967 directed the Coordinating Council to--

. . . conduct a study of the subject of the Doctor of Arts degree (the "Teaching Doctorate"), including the market for such degree and the feasibility of the University of California and the California State Colleges offering such a degree, and to report its findings and recommendations to the Senate not later than the fifth Legislative day of the 1969 Regular Session of the Legislature

This resolution is, in part, a reflection of the interest generated in recent years in an academic degree without the research emphasis of the typical doctor of philosophy degree but instead a degree in which greater stress is placed on the teaching of the individual discipline in which the student is prepared. This teaching-oriented degree is generally termed the "Doctorate in Arts."

The first part of this report has considered the question of teacher preparation in doctoral programs; in this portion of the report the question of the degree awarded is given emphasis.

Dr. Leslie Wilbur, Chairman, Department of Higher Education, the University of Southern California has prepared the material for the Council. Also included are findings from a survey performed by Dr. John Cashin of El Camino College. Dr. Cashin's study was supported, in part, by the Council. The conclusions presented in the text are his; the recommendations are those of the Council staff.

The Literature and the Doctorate of Arts Concept

The history of higher education in the United States is a chronicle of pressures and responses. American higher education in the twentieth century contains such a variety of institutions that an examination at any moment will reveal not only contradictory responses to problems but basic disagreements over the nature of the problems. The Doctor of Arts degree (or other similarly-termed degree) is a demonstration of one possible response to several interrelated problems. In order to weigh the answer carefully it is necessary to consider the problems which stimulated the response.

¹Numbers in parentheses throughout the text refer to the bibliography which follows the Appendices.

A listing of stated problems to which the Doctor in Arts degree¹ might be a response includes--

1. The need for greater number of college teachers. Current production of Ph. D.'s does not appear adequate to meet demands of all levels. A degree emphasizing teaching and attractive to the classroom-oriented instructor is required.
2. Junior colleges as a segment of higher education are in particular need for well-trained college level teachers. Masters degree level training may not be enough, and the Ph. D. holder typically prefers to teach and do research in a four-year college.
3. The present Ph. D. emphasizes research to such a degree that interest in teaching is not stimulated. Further, later emphasis on publication for promotion compounds the problem leading to an "escape" for teaching.
4. Beginning college instructors require greater training in the skills of teaching than is typically found among most new Ph. D.'s.
5. Salary scales in many junior college districts provide higher pay for faculty with doctoral degrees.

These assertions, as well as others, are reflected in the literature discussed below.

For definitions and historical background, Walter Eell's Degrees in Higher Education (9) is useful in answering questions which are often asked, such as where and when the first Ph. D. was offered (Yale 1860). Outstandingly well-informed and more critical is Bernard Berelson's Graduate Education in the United States. Berelson has published numerous articles and appeared on various panels, consistently finding fault and urging reform. He seems to oppose the concept of the intermediate degree, although his comments reflect ambivalence when he calls the degree a "poor second to the genuine article" (3:128) and then argues objectively for it. (3:90-92) Earl McGrath, in The Graduate School and the Decline of Liberal Education, is also urgent in his appeal for change. A persistent critic of higher education as it is presently constituted, McGrath argues against the traditional requirement of "original" research and for a new, broader interpretation of research training. (16)

The criticism of the Ph. D. has a long history, dating back to Lowell at Harvard. Everett Walters reviews the historical sequence of the criticism and concludes that the basic flaw has been "the complete failure of leaders in graduate education to define the purpose of the Ph. D." In his opinion, "it will be difficult--almost impossible--for a graduate school, regardless of size or prestige, to offer a new doctorate or a

¹Or some other unique "degree" emphasizing teaching rather than research.

rehabilitated master's degree for college teachers" because both federal grants to graduate schools and recent resolutions of such bodies as the Council of Graduate Schools in the United States are based upon the present pattern of Ph. D. programs. (82)

There are many writers who criticize the increasing pressures for research and publication, and the consequent reduced emphasis on teaching. Four writers who are representative of the critics are Paul Woodring, Thomas Brandt, Lester Hurt, and William Arrowsmith. Referring to the demands for research and publication, Woodring decries the damage to capable but unpublished teachers; he also points out the contrast of the mediocre teacher who moves up with a sufficiently impressive bibliography. (87) Brandt comments on the effects of pressure to publish, which may reduce classroom effectiveness and result in the publication of articles of doubtful value. (29) Hurt is perhaps the most subjective of the four; he reacts to what he considers to be the usual defenses of research and publication. (50) Arrowsmith, also somewhat emotional, would disqualify scholars as teachers, as they themselves have been doing; moreover, he would divorce the universities and research from the colleges and teaching. He sees professional training at the graduate level as corrupting all higher education. (23)

In addition to its vocal critics, graduate education has articulate defenders. Hans Schmitt, Franklin Pegues, Allan Cartter, and William O'Connor put forth several arguments in favor of the role of research in higher education. Schmitt postulates that the first step toward good teaching is engagement through research in a discipline. Not atypically, he argues on the basis of personal experience rather than research and asserts that without the refreshment of research the teacher becomes a repetitive robot. (73) Pegues adds a similar thesis that the progressive reduction of teaching load in the past was a reflection of the universities' concern for scholarly energy. Today, however, he adds that the current efforts to reduce teaching load are more the result of the larger number of students, than increased demands for research. (64)

Cartter is inclined to minimize the "public or perish" syndrome as largely mythical, suggesting that the times call for teacher-scholars as well as research-scholars. He comments perceptively on the role of graduate schools in national reputation in contrast to the valuable but inconspicuous contributions of undergraduate schools to student careers. His arguments are essentially for broadening, rather than revising graduate programs. (32) O'Connor in a similar vein suggests that the issue of publish or perish is false, since it ignores in American higher education the variety of faculty requirements, which range from those of the community college to those of the university. (63)

The doubtful effectiveness of college and university teaching has also been the target for a sustained barrage of criticism. Typical of the more vocal and more generally read critics would be John Ciardi and

and Andrew Hacker, who use phrases such as "contempt for teaching" (35) and "drudgery" (46) to describe the professorial stance toward teaching undergraduates. John Fischer, while also critical, does suggest some remedies, including the Master of Arts in Teaching degree of Harvard and Yale. (41) James Killian, Jr., the president of Massachusetts Institute of Technology, suggests that "Teaching is Better than Ever," thanks to the requirement of research. (54) An intensive and relatively balanced examination of the quality of university teaching is to be found in the Muscatine report, Education at Berkeley (especially pp. 39-63, 159-171) which points out the inconsistent demands on the Ph. D. and recommends the creation of the Doctor of Arts degree. (17) An interesting and intense student reaction to the report is Mario Savio's "The Uncertain Future of the Multiversity," which calls the report "superficial" and without "deep understanding of the aims of higher education." (72)

Academic dissatisfaction is not limited to the Ph. D. The master's degree has stimulated a variety of reactions also. Especially useful, is John Snell's "The Master's Degree." At the time of his writing (1965) there were 121 varieties of the master of arts and 272 types of master of science degrees. (78) Robert Metzger makes a similar plea for some standardization of the master's, which he describes as "total chaos." (60) Almost half of all the M.A.'s awarded in the U.S. from 1870 through 1962 were awarded from 1953-1962 - 670,152 - or 45%. During the academic year 1962-63, 87,900 M.A.'s were granted. (78) The flood of master's seems somewhat incongruous at a time when there is a shortage of doctorates. An especially useful analysis of that shortage of doctorates is H. John Chase's "The Numbers Game in Graduate Education." Chase infers that by 1970 the shortage will be even greater than the approximately 30,000 estimated by the U. S. Office of Education. (33)

One response to the widening gap between the doctorate and master's has been to suggest a strengthening of the master's through lengthening the program and raising the standards of performance. Theodore Blegen proposes a two-year M.A. (28) P. Elder argues that, granting an insufficient supply of college teachers with the Ph. D., a good M.A. is preferable to a poor Ph. D. He recognizes that a major problem will be that of marketability. (38) Oliver Carmichael would also extend the length of the master's; however, his three-year program would start with the junior year in college. (31) The two-year expanded master's program at the University of Tennessee (Master of Arts in College Teaching) also is a movement to increase the respectability of the master's degree. (71) Edmund Gleazer, Jr., also argues for upgrading the M.A. and suggests improvements rather than replacing it with a new degree. (45)

There is no shortage of suggestions for degrees which would be intermediate, neither the traditional masters nor a doctorate. Howard Putnam suggests a degree similar to the Educational Specialist (Ed. S.) whereby the holder would be designated as a "Specialist in Arts" or a "Specialist in Science," etc. This would avoid the confusion of the ambiguities of the terms "master" or "doctor." (70) Another solution is offered by John Miller, who builds a case for Yale's Master of

Philosophy (M. Phil.) as an argument against the Muscatine suggestion. In the fall of '68 Yale discontinued all M.A. and M.S. degrees, except in clearly terminal programs. The M. Phil. purpose is "to provide a new intermediate degree which represents mastery of a discipline in full scope and depth required of a Ph. D. except for demonstrated ability to organize and complete a major research project on a specific subject in a sub-field of the discipline." (61)

The word "philosophy" is used in several new degrees. One variation is Robert Henle Jr.'s "Cand. Ph. D." which he considers beyond the master's degree. (47) Stephen Spurr argues for the title "Candidate in Philosophy" for the purpose of recognizing formally the successful attainment of that stage in the doctoral program marked by the passing of a comprehensive examination and the completion of essentially all requirements up to the doctoral dissertation. The certificate is intended to mark a intermediate point in the advance toward the doctorate at a level widely recognized in graduate schools. (78a) In the midwest at least three other universities--Northwestern, Indiana, and Minnesota--have announced the offering of the Candidate in Philosophy, which "will produce a convenient designation for their (students) educational achievements in college catalogues." (78a) The C. Phil. has also reached the far west, having been recently established as a degree at the University of California.

Although there are variations among the universities, the basic patterns of the C. Phil. and the Doctor of Arts degree are very similar particularly in respect to achievement paralleling the Ph. D. up to, but not including, the dissertation. The rationale to that end point is discussed in detail by Everett Walters, who maintains that "It cannot be proved. . . that the dissertation is absolutely essential to bringing out the best gifts of the individual as a teacher. (82) The concept of providing recognition and increased employability for the 'A.B.D.' (All But the Dissertation) goes back nearly thirty years to George Pegram, Dean of the Faculties at Columbia University. (74) The case of the 'A.B.D.' is discussed more recently by Frederic Ness, who describes it as the 'lingering degree.'" (62)

Historically the Doctor of Arts title has had a somewhat less illustrious background than the Ph. D. Walter Eells and Harold Haswell point out that as of 1960 all D.A.'s offered had been honorary. Further, they show that the "Doctor of Arts-Science" is a spurious degree. (36) Allan Cartter also points out the honorary nature of the D.A. in the past. (32) Doctoral titles other than the Ph. D. are suggested by Hobert Burns who argues for a new degree or "new patterns in the education of our college-professors-to-be." Some possibilities would be Doctor of Social Science (already in existence), Doctor of Physical Science, Doctor of Arts (already in existence, one granted by Carnegie Tech), Doctor of Behavioral Science--or interdisciplinary degrees such as Doctor of Liberal Arts or Doctor of Humanities. (29a) Richard Bigger, on the other hand, builds a case against proliferating doctorates; he claims that the institutional framework rather than training causes professors to neglect teaching for research. (27)

There are discernible changes which are taking place in response to the problems which generated the Doctor of Arts degree as an answer. The traditional doctoral procedures which have stimulated such criticism are responding to that criticism. They are responding sluggishly and, it often seems, almost imperceptively. Change comes slowly, but it does take place if the pressure is both appreciable and sustained. Not all, and perhaps never a majority, of the universities will demand supervised teaching or allow a teaching emphasis for the Ph. D. But a growing number of universities are making graduate teaching experience a pre-requisite to their doctorates.

The professional degree, the Ed. D., has changed remarkably in its emphasis and content. Higher education majors and junior college specialists are completing the degree and staying in the classroom, since the gap between community college teaching and administrative salaries has decreased. Furthermore the Ph. D. in education is responding to the new demands, not only in the reduction of the language requirement but in its increasing relevance to the needs of community college faculty.

The University of California has since the 1950's provided national as well as state leadership in establishing the community college as the core of programs leading to either the Ed. D. or the Ph. D. The popularity and quality of such programs has stimulated other universities to develop doctoral programs for students who want to become specialists in curriculum or instruction as well as such fields as supervision or administration. The rising enrollments in these programs imply that the universities are responding in a fashion more appropriate to the needs of the community colleges.

The definition of research is also undergoing changes less perceptible to those outside the university. The topics of the doctoral dissertations of community college specialists seem to be moving in the direction more of application than of the pure research traditionally emphasized. Despite these changes, the short supply of community college persons trained in research techniques seems likely to continue as the community colleges are confronted by growing demands for institutional research.

National Developments in Doctorate in Arts Programs

Although the literature presents a variety of proposed and actual degrees as alternatives to the traditional masters and doctorate, at the present time there is little evidence of any general national development of Doctor of Arts programs.

The apparent disinterest on the part of the institutions who might offer the degree is not surprising, for it reflects the existing pattern of both the long-established prestige of the Ph. D. and the relatively rarity of alternate programs. In order to estimate the number of D.A. programs in existence, approximately two hundred universities outside of California were asked the following questions as part of a longer questionnaire discussed in more detail below:

1. Does your institution have a doctoral program which is different from the Ph. D. and is oriented toward the preparation of college teachers. (A description of a proposed D. A. was enclosed.)

Yes - 11

No - 122

It seems noteworthy that of those answering yes, more than two-thirds described their Doctor of Education program as being similar to the D. A. both in content and purpose. Similar comments were made by some of the "no" respondents, who felt the Ed. D. was close in its requirements to the Ph. D. but similar to the D.A. in its purposes. Several universities also pointed out that their Ph. D. for college teachers required a supervised internship in addition to the usual requirements. Essentially, however, their responses confirmed the study of the literature, which had revealed few actual Doctor of Arts programs.

The second question attempted to investigate the probability of a D.A. program's being introduced in the near future by asking:

2. If your institution does not now have a degree program like the Doctor of Arts degree described in the statement, have the faculty and/or students shown an interest in emphasizing the preparation of college teachers more in existing graduate programs?

No Interest ----- 25

Some Interest ----- 69

Substantial Interest - 22

The responses to this question seem to be consistent with the general tenor of the literature on the Ph. D. and its alternatives.

Practices in California

In California the Doctor of Arts degree has been proposed by the State Assembly Interim Committee on Education (Subcommittee in Higher Education) as one step toward resolving the conflicts between research and teaching. The findings and the recommendations of that committee are included in Appendix A, since they illustrate some of the concerns and suggestions of some California legislators. (24) (The word "findings" may be inappropriate, since it connotes facts. The "findings" are largely opinion, some of it contrary to current research findings.)

Some of the concerns of the Legislature are parallel to those of the California Junior College Faculty Association (CJCFA). Both groups use arguments similar to those advanced for most intermediate degrees. The CJCFA Doctor of Arts program is one of the three most commonly proposed D.A. degree patterns. Mary Wortham, as spokesman for the CJCFA, points out the essential advantages of the CJCFA Doctor of Arts program, which:

- "1. Provides a balance of scholarship, research, and teaching.
2. Provides breadth and coverage for intensive specialization.
3. Provides orientation to career in college teaching.
4. Provides expectation of completion within a definite time.

"The program would also allow for the D.A. to go on to complete the Ph. D. at any time when he completes the dissertation." (89)

A differing program is essentially the C. Phil. program, awarding the D.A. to the person who has completed all of the work, except the dissertation, for the Ph. D. In that program there is no emphasis on preparation for college teaching.

Still another pattern, one proposed by the National Junior College Faculty Association is shown in Appendix B.

Since it was necessary to describe a specific D.A. program to obtain a meaningful response to the questionnaires used in this study, the CJCFA proposal, the most discussed in California, was chosen as a model. (See Appendix C.)

FINDINGS

Assuming the need for availability of doctoral programs other than the Ph. D., and assuming the preferability of the Doctor of Arts degree over the candidate in philosophy or the advanced masters degree, should California public higher education offer a Doctor of Arts degree program? The central issues can best be analyzed through the answers to three essential questions:

1. Who would want the degree?
2. Who would employ the person with the degree?
3. Who would offer the degree program?

Data have been assembled from a variety of sources in order to respond to these questions. Questionnaires from which the data were obtained consistently used the model of the Doctor of Arts degree (89) as shown in Appendix C.

Who would want the degree?

An accessible and numerous group of candidates for the D.A. seems to be present and potential junior college instructors of California. In order to estimate their interest in the degree, the Council contracted with H. John Cashin to conduct a survey in conjunction with his doctoral dissertation study at the University of Southern California. (7) Cashin's survey was completed in April 1968.¹

¹The entire survey is available in the Council offices. Due to its length, it is not included herein.

Several of the findings deserve special attention. Although a sampling technique was used, the results are statistically defensible as being representative of the junior college instructors of California.

1. When asked to express their opinion concerning the level of educational achievement the respondents indicated what they considered adequate preparation for teaching in their present assignment as follows: (a) Out of 566 with a bachelors or masters degree, 458 considered a masters adequate and 17 specified a doctorate. (b) Out of 76 with a doctorate, 62 specified a masters and 14 a doctorate. These responses were relative to the conventional doctoral degrees.

2. When asked to respond to the question of whether they would work toward a "doctoral specifically designed to meet the needs of undergraduate college teaching: (a) Of 443 with bachelors or masters (not presently working toward the doctorate) 297 replied "yes." (b) Of 106 with bachelors or masters (presently working toward the doctorate) 64 replied "yes." (c) Of 73 with doctorates, 19 replied "yes."

3. When asked whether they would work toward a teaching doctorate, respondents who were currently working toward a doctorate: (a) 21 in professional education fields (Ed. D.) 18 replied "yes;" (b) 13 working toward the Ph. D. in education, 7 replied "yes;" (c) 52 working toward the Ph. D. in a field other than education, 36 replied "yes."

In summary, these findings suggest a substantial demand from junior college instructors for a teaching doctorate rather than a research doctorate.

The potential demand on the part of students who aspire to teaching position in senior institutions is more difficult to assess. Typically the traditional doctorates are considered to be the most desirable by colleges and universities, and there is a long-established tradition of research doctorates, even though the current shortage often pries the door open for applicants with a master's degree. But typically those so employed enter with the condition that they will complete the conventional doctorate within a time limit. The entry of the would-be college teacher into the D.A. program might relate to his estimate of the reception of the degree.

The most thorough junior college faculty expression of desire and argument for the D.A. is that of Mary Wortham who furnished the model degree specifications used in the Coordinating Council research questionnaires. (See Appendix C.) Published in the AAUP Bulletin (89), her comments stem from the unanimous resolution of the State Council of the California Junior College Faculty Association to request a "rigorous and scholarly degree in subject fields at the doctoral level to better serve college teachers of undergraduates." (89:372) Presented from her position as a junior college English instructor, her statement of the case for the degree is recommended as a source of further information on the issue.

Who would employ the person with the degree?

This question is almost inextricably related to the preceding question. If persons with a new degree find that their status is not appropriately enhanced, the incongruity between expectations and reality provides a warning to those about to enter the program. Conversely, demonstrations of accelerated promotion, more numerous opportunities for employment, and greater satisfaction from teaching can be persuasive evidence of the desirability of the degree, not only to the possessor but also to other professionals in higher education.

In order to assess the demand for those with the degree, the Council surveyed a variety of potential employers. Although the analysis was centered in California higher education, an attempt was made to sample institutions outside California, since there is a national market in which many California graduates serve with distinction. However, the greatest amount of attention was given to the four segments of higher education in California: the community colleges, the state colleges, the state university, and the independent institutions.

The Community Colleges. In order to estimate the marketability of the D.A. in the community colleges, the Council obtained the opinions of chief administrators of the community colleges of California. The responding community colleges represent a cross section, including urban and isolated, large and small, recent and long-established. Although the responses do not include all of the colleges, they seem so consistent as to be representative of the total group.

Junior college district superintendents were asked to respond to three questions:

1. Would a Doctor of Arts degree (the Teaching Doctorate) be as acceptable in your district for salary schedule purposes as the existing doctorates?

Yes - 36

No -- 1

It should be added that an appreciable number of districts pointed out that their highest track is already open to persons with a master's and ninety units beyond the bachelor's degree. Also several districts are accepting the J.D. (law degree) as equivalent to a Ph. D. or Ed. D.

2. To what extent are you now actively seeking persons with a doctorate?

None ---- 22

Little -- 6

Actively - 3

Note that for all three questions the response totals vary according to the willingness of the respondents to frame a discernible response to the question.

3. Would you be more active in seeking persons with the doctorate if they had a Doctor of Arts degree?

Yes ----- 12

Perhaps - 12

No ----- 6

An appreciable number of the respondents felt constrained to comment that they did not at the present time search for degrees beyond the masters, since they felt that it was sufficient academic training. Their comments underscore an issue which has yet to be resolved, how much training in subject matter is appropriate for an instructor confined to lower division courses. Many outstanding community college teachers hold doctorates. Nevertheless, there is an unresolved basic question: Is it not likely that an "overtrained" instructor may be dissatisfied by the opportunities to apply his training in teaching freshman classes, which are the most numerous in community colleges? Might not he -- and his students -- be better off if he returns to graduate school periodically to update his knowledge, rather than accumulate more of a perishable commodity early in his career?

Although it would be preferable to have answers from every community college, the patterns seem clear-cut enough to support several conclusions: (a) There is relatively little active recruitment of holders of the Ph. D. or Ed. D. (b) Holders of the Doctor of Arts degree, as described in the questionnaire, would be actively recruited by a number of community colleges. (c) A Doctor of Arts degree would be awarded the same salary schedule placement as other doctoral degrees.

Further evidence of the marketability of the D.A. is provided by Cashin's study. (7) Deans of instruction, who typically play a major role in the employment of community college instructors, were asked the question, "Would the degree (D.A.) be accepted as equal to the Ph. D.?" Seventy percent replied "yes," only sixteen percent "no." While the response does not provide a competitive comparison with the master's, it does suggest that in the community colleges the teaching doctorate would be as acceptable as the Ph. D. at the time of initial employment.

The California State Colleges. In California the second largest market for college teachers is the State College system. Already giant by national standards, the rapid expansion of the State Colleges has resulted in a sustained and substantial demand for qualified instructors. Thus, an exploration of the potential employability of the D.A. in the system seemed germane to the assessment of in-state marketability. A thorough analysis of the State College attitudes toward D.A. recipients should include a study of faculty attitudes, since faculty and especially department and division heads, have much to do with the employment of new staff. Research of that magnitude did not seem feasible; consequently, the chief administrative office of each campus was asked to respond. Hopefully the administrative responses include perception of and sensitivity to faculty attitudes.

Each State College president was asked the following questions:

1. At your institution would you consider appointing the holder of a teaching doctorate, like the Doctor of Arts degree described in the attachment, at the same academic rank and salary level as an otherwise equivalently qualified Ph. D. holder?

Yes ----- 9

Mixed Response - 2

No ----- 7

2. Would you actively seek the holder of a doctorate such as the Doctor of Arts when recruiting faculty?

Yes ----- 8

Mixed Response - 2

No ----- 3

The State College responses are much less clear cut than those of the community colleges. There is no apparent relationship between the responses and the size or location of the institution, since both negative and affirmative responses were forthcoming from the smaller and more isolated colleges. The State College administrators, at least half of them, will accept the Doctor of Arts degree and will actively seek its holders. But conversely it must be pointed out that nearly half of those responding will neither accept at parity nor pursue actively the holder of the D.A. degree.

The respondents who were so concerned as to comment on the issue displayed some consistency in their attitudes. Frequently it was pointed out that the degree and the ability of the individual are two separate issues. Several were similar in their candor when they pointed out that they would consider D.A. holders only if unable to find a Ph. D. or an "A.B.D." Others pointed out that they were already treating Doctors of Business Administration and Ed. D.'s as equivalent to Ph. D.'s for rank and salary and would do the same for D.A.'s if "the degree is earned at a strong college or university where it (D.A.) is comparable to the D.B.A. and Ed. D."

The University of California. The Council posed the same two questions to the chief administrators of the campuses of the University of California. (It should be mentioned that respondents from the University were quick to point out, as did State College staff, that for some a doctorate may not be necessary or appropriate.)

1. At your institution would you consider appointing the holder of a teaching doctorate, like the Doctor of Arts degree, at the same academic rank and salary level as an otherwise equivalently qualified Ph. D. holder?

Yes ----- 1

Mixed Response - 2

No ----- 4

The results suggest that there may be a substantial difference between the attitudes of the State Colleges and the University. The difference is to be expected, since two of the major responsibilities of the state university are research and the conduct of doctoral programs. Thus, in effect, the D.A. holder is automatically excluded from much of the research activity for which the Ph. D. is theoretically trained. The D.A. degree as outlined would also be inappropriate as preparation for a faculty member who was responsible for directing the programs of the Ph. D. candidates. As several respondents commented, the D.A. might be ranked as "lecturer" and thus kept off the academic ladder, which relates to research performance.

The Independent Colleges of California. The Council did not poll the independent institutions; one might speculate, however, that many of the small liberal arts colleges would seriously consider the Doctor of Arts degree as being preferable to the master's degree, especially if they were to have appreciable difficulty, because of rising faculty salaries, in competing for Ph. D.'s. It might be that the D.A. holder in California would be more likely to have the choice between teaching at a community college or at a four-year independent college, whereas the master's degree holder would be less likely to have the option.

The independent universities compete for staff with the University of California and are faced with parallel responsibilities. Consequently one would expect the independents to give first priority to staffing with research-oriented degrees, although they, too, could be expected to employ a D.A. when confronted with a vacancy for which there was no qualified researcher. Frequently, however, an institution will simply leave an unfilled position vacant, hoping to compete more successfully the following year.

The National Market. Although California higher education has traditionally imported more faculty than it exports, there is growing national competition for college and university staff. Thus, a study of market-ability must devote some attention to the attitudes of colleges and universities outside California. Higher education is expanding more rapidly in those states which only recently have begun to make higher education available to all their citizens. Salaries and opportunities have increased simultaneously in many states which in the past were major suppliers of faculty for California higher education. As in California, the major national faculty market is in the community colleges, which are growing nationally at a rate of more than fifty new ones a year. Since, however, the master's is still the basic degree in other states as well as in California, this study concentrated on an assessment of the senior institutions.

In order to estimate the potential national university market for the D.A., the Council requested information from a sample of the universities across the United States. The sample was restricted to those institutions which seemed typical as potential employers and whose opinions and reactions

weigh heavily in American higher education. When asked two questions, they responded in this fashion:

1. At your institution, would you consider appointing the holder of a teaching doctorate, like the Doctor of Arts degree, at the same academic rank and salary level as an otherwise equivalently qualified Ph. D. holder?

Yes ----- 59
Mixed Response - 21
No ----- 43

2. Would you seek actively the holder of a doctorate such as the Doctor of Arts, when recruiting faculty?

Yes ----- 36
Mixed Response - 29
No ----- 56

A clear majority of the respondents would appoint the Doctor of Arts degree holder at a level equivalent to that of the Ph. D. However, the number of mixed responses reflects the difficulty of giving an unqualified answer. There were several comments which appeared consistently enough to merit special attention, since they express common concerns about the D.A.:

1. The level of appointment relates to the field; some fields do not require a doctorate.
2. The appointment could only be temporary.
3. The appointment would be acceptable in non-degree departments.
4. Service would be restricted to undergraduate level.
5. The degree is more appropriate to junior college faculty.
6. The decision relates to the individual rather than the degree.

The question of actively seeking the degree holder elicited a clearly negative majority. However, an even larger number found it impossible to answer the question with a flatly negative or affirmative response. Typical of the comments accompanying the mixed responses was the sentiment that active pursuit would be reserved for an outstanding holder of the D.A. degree. Others pointed out that the fervor with which any person was sought depended on the department and the supply of candidates. Perhaps most significant was the observation that until a sufficient number of persons have taken the degree and have served higher education, there can be no meaningful evaluation of the degree, which is essentially a composite of the demonstrated abilities of those who hold it.

Nationally the likelihood of the acceptance of the D.A. for rank and salary comparable to the Ph. D. would seem to be appreciably greater than in the State Colleges and the University of California. The reluctance toward active recruitment is consistent with the expressions of the other areas of higher education. Whereas some schools would pursue the holders of the D.A., the majority of schools in any of the groups would not do so.

Who would offer the degree?

The issue of who would offer the degree has in this study, as defined by the legislative resolution, two essential limitations: One, the state boundary lines; the other, publicly financed higher education. Within those limitations there are only two qualified agencies: the University and the State Colleges. There is little evidence to suggest that either system is seriously interested in introducing a D.A. program. On the contrary, the University of California has instituted the candidate in philosophy degree as intermediate between the master's and the Ph. D. The possible introduction of Ph. D. programs, not establishment of a D.A. program, seems to be more the center of the aspirations and energies of the State College system.

Statutory limitations now preclude the State Colleges from offering a degree program beyond the masters degree level (other than joint doctorates with the University of California). It is assumed for purposes of this survey that it is feasible for the State Colleges, especially those with extensive existing graduate programs, to offer the D.A. degree. Since there is limited research emphasis, such facilities are not required. Library holdings, faculty qualifications, impact of the balance of program, etc., are all matters which would necessarily be considered in the actual authorization of such a degree.

SUMMARY AND FINDINGS

1. It is commonly asserted that there is a greater need for the teaching-oriented college instructor at the undergraduate level and that present Ph. D. programs do not turn out enough individuals interested in teaching rather than research and other activities.
2. The literature reveals substantial criticism of the Ph. D. program as oriented to research rather than teaching. This criticism typically points out that the Ph. D. requires too long to obtain, includes anachronistic language requirements, is too narrow in scope, and consequently does not in adequate measure train the undergraduate college instructor, especially those who expect to teach in junior colleges.
3. To meet the need for college instructors the typical masters degree is generally discounted due to the variable and chaotic extent of preparation. Other degrees besides the

Ph. D. are offered in the literature as a solution to meeting the need for the college teacher. These include:

- a. The "advanced master's."
- b. An intermediate degree--such as the Candidate in Philosophy.
- c. Doctorates other than Ph. D., i.e., Doctorate in Arts.

The latter degree is emphasized in this study.

Each of the alternatives offers a mixture of advantages and disadvantages. The Candidate in Philosophy (C. Phil.) degree, recently introduced at the University of California, is designed to provide formal recognition for the graduate student who completes all of the Ph. D. requirements except the dissertation. Recognizing that the number of A.B.D.'s ("All But the Dissertation") is nearly equal to the number of those who complete the program, the University, thus, can award recognition to the student who had completed a substantial program beyond the master's degree.

The "advanced master's" degree typically demanding the equivalent of another full year's graduate work beyond the usual master's degree has found a limited success. In theory the degree should command salary and prestige beyond the usual master's degree. Nevertheless, since in California higher education the possessor's eligibility for employment would be largely limited to the community college, his placement on the typical salary schedule would be based on the number of graduate units past the bachelor's or master's degree rather than any special degree short of the doctorate. Consequently on these schedules his salary would be identical to that of the person with a conventional master's and an equal number of graduate credits.

A degree using in its title an adjective other than "master's" or "candidate" would seem to have a substantial semantic advantage, particularly if it confers an established title such as "doctor." Thus, the Doctor of Arts would appear to be more attractive than either the candidate in philosophy or the advanced master's. Holding other qualifications as constant as possible, the applicant with the more impressive title could have a competitive advantage. "Doctors" of business administration, social work, education, and music, to mention degrees which are growing in numbers and acceptance, demonstrate simultaneously the viability of the programs and the importance of title.

4. Baccalaureate and graduate institutions, it appears, will continue to emphasize the Ph. D. or existing professional degrees as the basic qualification and requirement for promotion among faculty. In community colleges, on the other hand, there appears to be a substantial interest in the D.A. degree.

It should be pointed out, however, that the model requirements for the D.A. bear a resemblance to some emerging Ed. D.'s and Ph. D.'s. In the past the Ed. D. in California was primarily a degree for administrators at elementary and secondary level. However, an examination of dissertation topics for Ed. D. degrees at the University of California reveals a dramatic shift away from the patterns prevalent ten or fifteen years ago. There is virtually no area left unexamined by Ed. D. or Ph. D. candidates, many of whom are subject matter specialists and outstanding teachers on their own campuses.

Furthermore, there is another recent basic change which is not yet generally perceived. During the past few years, but particularly since the change to the most recent junior college credential requirements, the master's degree in a subject matter field has become an integral part of the doctoral program in education. Only those persons who are teaching at a junior college by virtue of the earlier general secondary credential will be able, without a subject matter master's, to combine a doctoral program with junior college teaching. Even without a credential requirement, it seems likely that competition will effectively force a subject-matter master's upon the aspirant to junior college teaching. Thus, it seems that the Ed. D. will represent advanced training beyond a subject-matter master's degree. In addition, the prevalent pattern is one of combining full or part-time junior college teaching with the Ed. D. program.

Those community college instructors who take doctorates other than the D.A. are likely to have greater mobility within higher education. As the community colleges continue to shed their past identification with secondary education and achieve recognition as a major segment of California higher education it seems likely that there will be an increased circulation of faculty among the community colleges and the state colleges and university. The community college faculty member who is concerned with his access to other levels of higher education will probably, as his counterparts have in the past, gravitate toward the degrees most advantageous in higher education.

5. There are indications that there is a significant potential market for the Doctorate of Arts degree in the community colleges. The degree is acceptable to most in the two-year institutions and there are many positions to be filled. However, acceptance should not be confused with preference, although it seems probable that the Doctor of Arts degree holder will have an advantage over the master's degree or the C. Phil. And his salary will be equivalent to that of the Ph. D. or Ed. D.

The community colleges generally do not actively pursue Ph. D.'s or Ed. D.'s, nor would they plan to do so with D.A.'s. Thus, it would seem that in the immediate years ahead the D.A., as the Ph. D. and Ed. D. have been, would be largely an "on-the-job" degree.

6. The second largest market would appear to be that of those senior institutions with the least responsibility for research. The State Colleges and the independent four-year liberal arts colleges--both within and without California--are the most logical employers. However, among the senior institutions, the competition places an appreciable emphasis on degrees, with a hierarchy taking into consideration not only the kind of degree but the field and the institution as well. Though the process may not be as grim as described in The Academic Market-Place (13a), it does seem likely that until the degree is established by institutional prestige and reinforced by sustained excellence in its recipients, the holders of the D.A. may be relegated to subordinate status in the senior institutions. The Doctor of Arts would no doubt be hired in the university as well as the four-year college. However, he may be categorized as ineligible for the promotional ladder as well as for teaching at any level other than undergraduate. Hopefully for the universities there are stirrings in the direction of a widening of the Ph. D. program. Several institutions now require supervised teaching experience or offer a Ph. D. designated as college teaching degree.
7. It is feasible for any of the campuses of the University of California and many State Colleges subject to statutory permission to offer the Doctorate in Arts.¹ However, no institution in California public higher education has produced a concerted proposal in this direction. The absence of action should not be interpreted as a lack of interest. California public higher education has had to respond to an avalanche of demands since World War II. The demands of continually increasing numbers of students for traditional programs have imposed a list of priorities which may not encourage the development of new programs, particularly if the innovations may require additional staff and funds.

There is in addition a back-pressure of resistance to the D.A. which is largely psychological rather than economic. In academe by tradition the most prestigious assignments are those related to the production of Ph. D.'s, the least "honorable" are those related to freshman classes or sub-freshman level teaching, which is frequently banished to a distinctly separate activity outside the academic walls. Thus, a D.A. program, while it could go beyond the master's program, would probably still fall short of the ultimate level in the academic value system. On the one hand, the institution which grants the traditional doctorates may perceive the D.A. as a competitive detour for its graduate students; on the other hand, the institution hoping to offer the traditional doctorates may consider the D.A. to be a formal badge of academic subordination.

¹ It is assumed that State Colleges with extensive graduate programs could offer the degree. This does not imply in any way that this should be the case.

CONCLUSION

It is concluded that no Doctor of Arts program should be initiated at this time in California public higher education institutions. Within the limitations that have been described, there is clearly a market for the degree and for the holders of the degree. Though offering of such a program is feasible in most public institutions, nevertheless, for such a degree program to be successful there must be, if not overwhelming, at least unmistakable evidence of an institutional willingness to introduce a Doctor of Arts degree program. Such interest does not appear present in California institutions of higher education. There must be sufficient teaching and administrative staff who believe in the value of such a program, if the degree is to represent the formal recognition of a process which both the teacher and the student respect. Given time, the wherewithal, and the internal drive, the program may be launched voluntarily in the future, but it does not seem advisable within the present academic context.

There is a need for competent researchers and for outstanding teachers. Ideally but not commonly they are found in combination. The best designed programs should allow for the maximum development of either or both of those arts. If the established degree programs are unable to respond with sufficient speed or with appropriate change, then a new avenue in the form of the Doctor of Arts degree may be an appropriate response. If, on the other hand, the problem is already on the way toward a solution which may be more advantageous, the premature introduction of a new degree would introduce additional problems while protracting responses to old ones.

APPENDIX A

SUBCOMMITTEE ON HIGHER EDUCATION, ASSEMBLY INTERIM
COMMITTEE ON EDUCATION, THE GREAT EXPERIMENT, JANUARY 1967

Findings and Recommendations Relative to the Functions
of Teaching and Research in Higher Education

The Committee Finds That:

1. Increasing proportions of professional time are devoted to research as contrasted with classroom instruction in institutions of higher education.
2. The academic marketplace in California and the nation makes research activities more lucrative than teaching.
3. Professors in the sciences and social sciences are able to obtain additional income for summer projects in research.
4. Most faculty members wish to devote even more time to research and less time to teaching and administration than is presently the case.
5. There is little if any distinction made between first rate research and second rate research.
6. The term "research" varies greatly in meaning and interpretation. "Instructional research," largely connected with scientific laboratory work, seems to be an important teaching aid when it involves students directly. This is in sharp contrast to research in professional academic achievement which does not involve the student, but which often results in impractical, pedantic treatises, which, though published, usually perish.
7. There is little if any distinction made between first and second rate teaching.
8. Undergraduate class sizes in our colleges and universities have increased in order to maintain or lower faculty teaching loads within restricted budgets.
9. Personal contact between undergraduate and teacher has seriously deteriorated.
10. Prestige in teaching is frequently measured by the grade level of the courses taught.
11. The proportion of the age group enrolled in graduate instruction is approximately equal to the proportion of the age group enrolled as undergraduates a generation ago.
12. The growth in undergraduate enrollment has been considerably greater than the growth in resources allocated to this function.

The Committee Recommends That:

1. The Legislature should enact a concurrent resolution asking the regents and the trustees to create financial incentives to reward superior teaching. Such incentives should be awarded on a permanent (although revocable) basis, and they should not be less than \$1,000 per year apiece.

2. The regents, by concurrent resolution should be requested, and the trustees by statute should be directed, to require a full 12-hour teaching load for one year in every seven for any professor.¹

3. The university and the state colleges should be asked to create permanent committees for the assessment of research in terms of quality and utility. Such committees should be directed to report to the Coordinating Council for Higher Education at appropriate intervals.

4. The university should adopt rules for granting a doctor of arts degree (all Ph. D. requirements except the dissertation) and establish employment rules guaranteeing equal status of the D.A. with the Ph. D.²

5. Employment and retention policies should be changed to permit the permanent employment of above superior teachers, regardless of their publications or degrees.

6. The Coordinating Council should be directed to develop a cooperative program for the exchange of teachers on an annual or biennial basis among the state colleges, the junior colleges, and the university campuses. Such exchanges should not necessarily be limited to public institutions, and for this purpose all credential laws for junior colleges should be waived.

7. For outstanding teachers in the state there should be established, by statute and special appropriation, a number of special and permanent stipends. These awards should be known as "Governor's Professorships" and should move with the individual so long as he remains a teacher in the state. The awards should be made on institutional recommendations of the regents, trustees and junior college boards.

¹Assemblyman Flournoy states: "I believe a 12-hour teaching load is excessive, and greater than normal practice at major universities."

²Relative to this recommendation, Assemblyman Flournoy dissents and comments: "I strongly disagree. In many institutions the dissertation is the only distinction between the M.A. and the Ph. D. I see no reason why the proposed D.A. and the Ph. D. should be accorded equal status, since one would require, in my judgment, at least one year less graduate effort than the other."

APPENDIX B

DOCTOR OF ARTS IN COLLEGE TEACHING

(National Faculty Association of Community and Junior Colleges Model)

A committee was convened by the National Faculty Association in the summer of 1968 to consider design of a program of graduate preparation for community college teachers beyond the Masters degree. The following committee members developed the proposal for a Doctor of Arts in College Teaching which is described below:

Dr. Duane Anderson, University of Iowa
Dr. William K. Ogilvie, Northern Illinois University
Dr. Peter Senn, Wilbur Wright College
Prof. Norbert J. Schommer, President NFACJC (Wright City College)
Mr. Alan G. Stratton, Executive Director, NFACJC
Mr. Donald J. Keck, Professional Staff Assistant, NFACJC
Dr. Basil C. Hedrick, Professional Consultant, NFACJC

In addition to subject area, professional preparation of the community college teacher would include:

1. History, philosophy, and function of the community/junior college within the field of higher education.
2. Leadership problems, including professional and legal concerns, legislation, administration, and finances.
3. Testing and evaluation, including statistics, data analysis, and the interpretation of educational research.
4. Characteristics of students, including learning theory, psychology, educational sociology, and student advisement, counseling and/or guidance.
5. Special problems in curriculum, in subject fields characteristic of community college teaching.

A Candidate Degree in College Teaching would be available after two years of work beyond the M.A., which would include 30 hours of subject area and related courses, 15 hours of professional preparation courses, and 12 hours credit for Internship with concurrent intern seminar in C/JC teaching.

The degree of Doctor of Arts in College Teaching would be awarded only after successful completion of an academic year of full-time teaching (a residency), followed by evaluation of written log and terminal report, a post-teaching evaluation seminar, and oral doctoral examination.

Basically the Doctor of Arts in College Teaching is a 4-year program, with a Candidate's Degree available after the third year.

(See Chart below for description by modules.)

The descriptive titles of areas of preparation should not be construed as specific course recommendations.

FORMAL ACADEMIC EDUCATION	PROFESSIONAL PREPARATION	SEMINAR-INTERNSHIP	YEARS OF STUDY
B.A. (120 hours)			1 2 3 4
Subject area appropriate to C/JC curriculum or, equivalent in course work at graduate level in a subject area appropriate to C/CJ curriculum.	<div> 1. History, Philosophy and Function (3)* 2. Special Problems in subject area, taught by subject area instructors (3) </div>		5
MASTERS DEGREE (30-36 hrs)	↑ OR ↓		
Broad subject area courses Related subject area courses Interdisciplinary area courses (30+ hours)	<div> 1. History, Philosophy and Function (3) 2. Special Problems (3) </div>		6
	3. Leadership (3) 4. Ed. Research, Testing (3) 5. Characteristics of Students (3)	1 semester concurrent Intern Seminar in C/JC Teaching (3) Internship (9)	7
CANDIDATE DEGREE IN COLLEGE TEACHING			
Academic year of full-time teaching (6) Post teaching evaluation Seminar (a) Evaluation of written log and terminal report, etc. (b) Oral doctoral examination			8
DOCTOR OF ARTS IN COLLEGE TEACHING			

*Numerals in parentheses indicate semester hours.

APPENDIX C

A MODEL OF POSSIBLE DOCTOR OF ARTS DEGREE
(California Junior College Faculty Association Model)

CREDITS: A minimum of 90 (semester) credits beyond the bachelor's degree, apportioned between course work and research.

COURSEWORK: Approximately two years of course work in a subject field acceptable for a Ph. D. Courses comparable to those taken by candidates for the Ph. D. but allowing breadth rather than specialization. Comprehensive examinations the same or equivalent to those taken by candidates for the Ph. D.

RESEARCH: Flexibility in meeting research requirements with a thesis to be completed in one semester of full-time work. The thesis may consist of an expository and analytical study of some significant phase of the field or a project in applied research, such as the development of curriculum materials, teaching strategies, and their testing in a class situation.

LANGUAGE: Requirement to be determined by the student's major department in accordance with potential usefulness in the subject field, or possibly it could be met through a thorough reading, speaking and writing knowledge in one foreign language.

SUPPLEMENTARY OPTIONS: Selected to broaden background and serve college teaching. Examples:

- (a) Practicum: Internship, classroom presentation; traditional and new teaching techniques.
- (b) Education Research Techniques: Research design; statistics; data analysis.
- (c) Background Courses: Learning theory; educational sociology; nature of higher education.
- (d) Leadership Problems in Higher Education: Administration; legislation; finances; law, etc.
- (e) Special problems in curriculum in the subject field.

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